AIRFIX
CONSTRUCTION KIT

1/72 SCALE MODEL CONSTRUCTION KIT

JUNKERS JU 88—4

The Ju88 was conceived in 1935 and the prototype flew for the first time in December of 1936, the whole of the design and construction being completed in just under a year. Still in production when the war ended in 1945, the Ju88 was the mainstay of the Luftwaffe and achieved the distinction of being one of the most adapted, and modified aircraft in the world.

Designed as a high speed bomber, it was decided in 1939 to utilise the Ju88 for dive bombing, and dive brakes were fitted beneath the wings of the first A model. Early A models of the Ju88 took part in the Battle of Britain, and although generally successful certain improvements were shown to be necessary, and these were incorporated in the A-4. Operational in 1941, the Ju88 A-4 featured a six foot increase in wing span, and a greatly increased armament; later production A-4s also had more powerful engines.

Bomber production continued with the A series and later the S series, much altered and considerably faster, and eventually the 188 and 388 series, came into service. At the same time as the bomber development was being carried out, fighter versions of the Ju88 were introduced; the first of these, the Ju88 C series, being directly comparable with the A series of bomber. By the end of the war 15,000 Ju88s had been produced 9,000 of which were bombers.

During its long career the Ju88 was used as a bomber, day-fighter, night-fighter, reconnaissance, torpedo bomber, ground attack and trainer and even as a pilotless missile. The Ju88 was employed on every German front, and also served with the Air Forces of Finland and Italy.

The Ju88 A-4 was powered by two Junkers Jumo 211 engines, each of 1,200 h.p. and had a maximum speed of approximately 290 m.p.h. and a range of 1,553 miles. Defensive armament varied considerably, a typical example being one 13mm and one 7·9mm gun firing forward, two 7·9mm guns firing aft from the cockpit, and one 7·9 or 13mm gun in the ventral gondola. Bombs were carried externally up to a maximum load of 6,600 lbs.

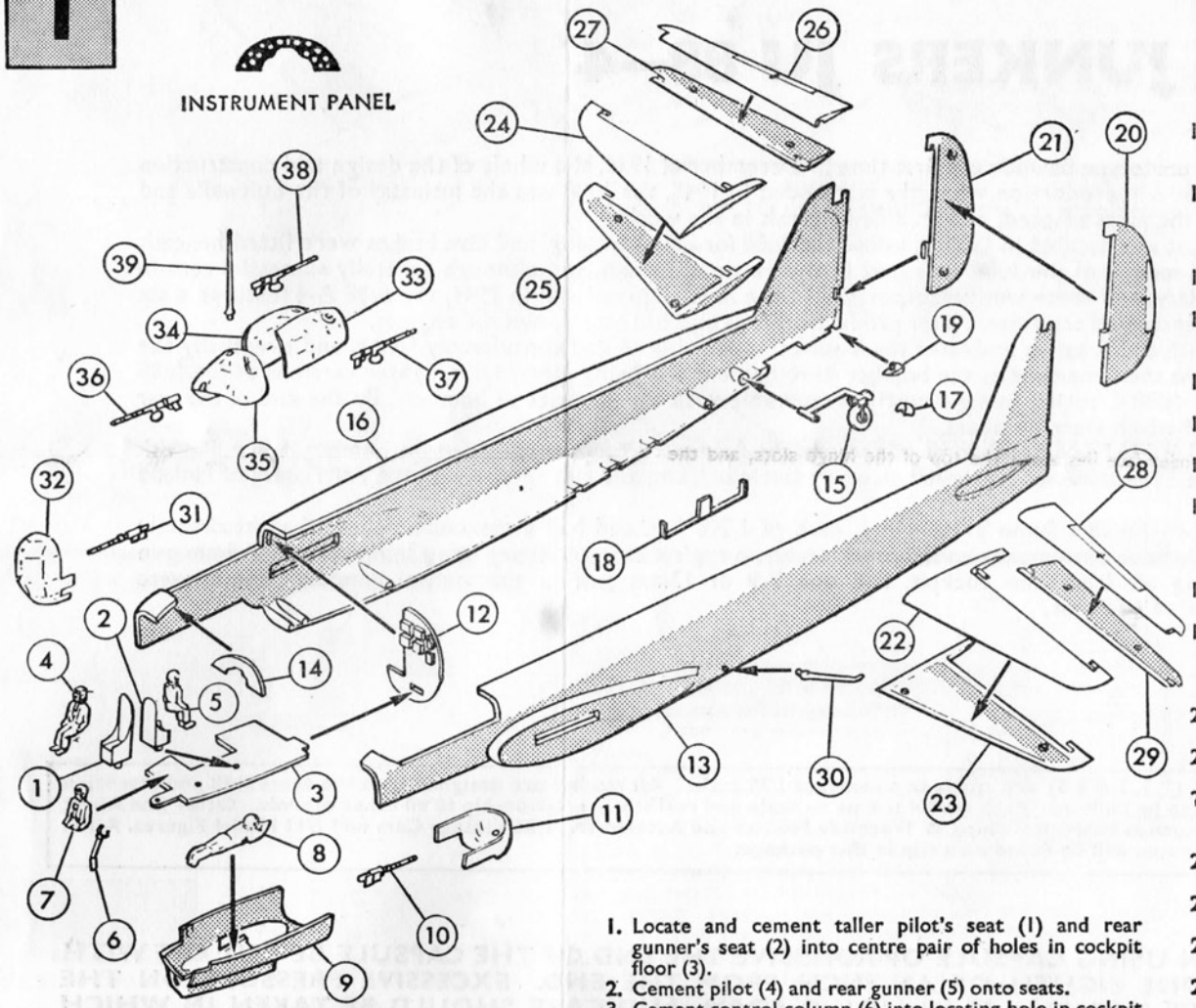
IT IS RECOMMENDED THAT WHEN USING CAPSULE OF ADHESIVE THE END OF THE CAPSULE BE CUT OFF WITH A PAIR OF SCISSORS APPROX. ONE EIGHTH OF AN INCH FROM THE END. EXCESSIVE PRESSURE ON THE CAPSULE IS UNDESIRABLE AS THIS MATERIAL IS IN LIQUID FORM, AND CARE SHOULD BE TAKEN IN WHICH DIRECTION THE CAPSULE IS POINTED TO AVOID GETTING ADHESIVE IN THE EYES OR ON CLOTHING.

INSTRUCTIONS

PAINT ALL DETAILS AND LET DRY BEFORE ASSEMBLING (SEE SECTION 4)

N.B. FOR PAINTING USE "AIRFIX" PAINTS, FOR FIXING USE "AIRFIX" POLYSTYRENE CEMENT

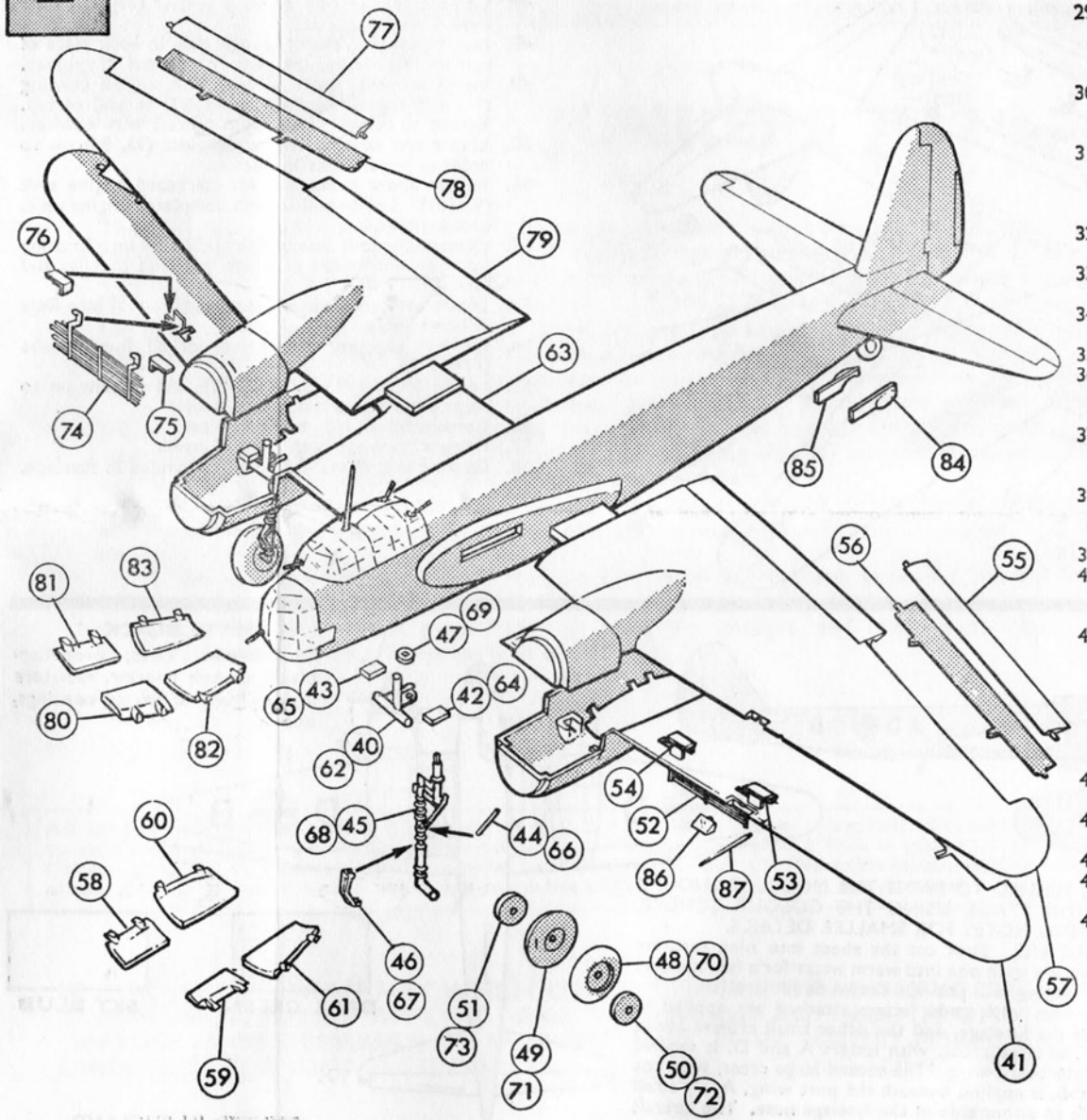
1 FUSELAGE, TAIL & INTERIOR ASSEMBLY



It is recommended that the instructions and exploded view are studied and the assembly practised before cementing together. If it is wished to paint internal details such as crew, turret or cockpit interiors, this is best done before assembly.

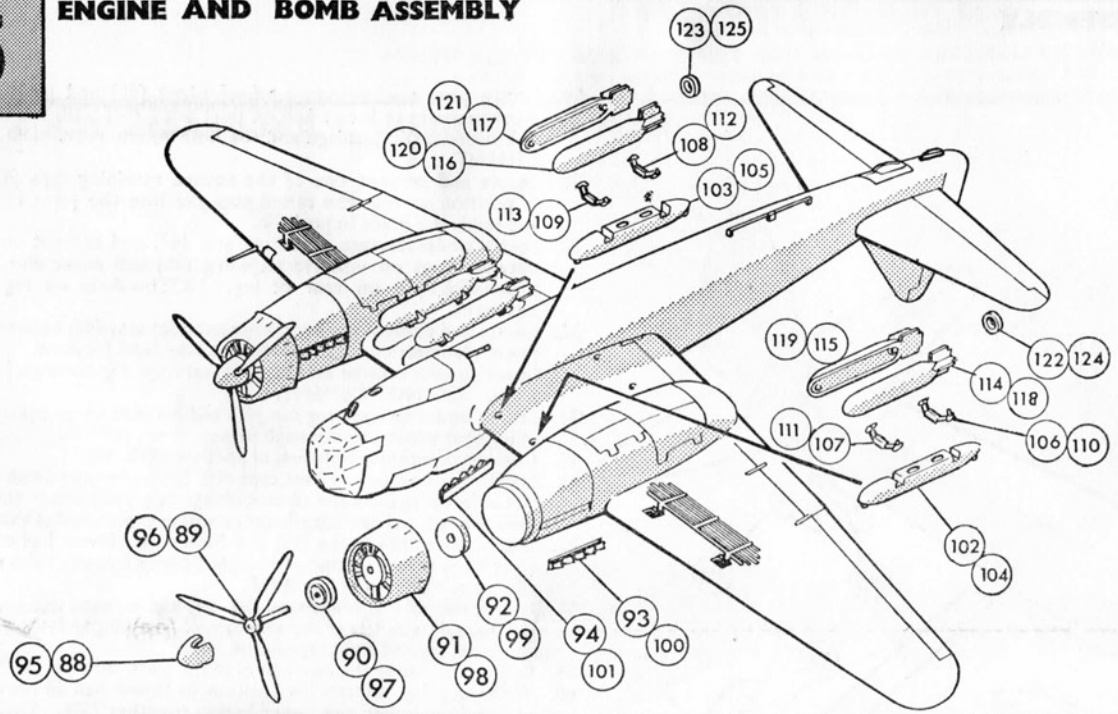
1. Locate and cement taller pilot's seat (1) and rear gunner's seat (2) into centre pair of holes in cockpit floor (3).
2. Cement pilot (4) and rear gunner (5) onto seats.
3. Cement control column (6) into locating hole in cockpit floor in front of pilot.
4. Cement nose gunner, with amputated legs (7) onto cockpit floor beside pilot.
5. Locate and cement underside gunner (8) into the bottom of ventral gondola (9).
6. Insert 13mm machine-gun (10) through hole in gondola transparency (11) and carefully cement in place.
7. Cement transparency onto rear of gondola applying cement to edges only.
8. Cement cockpit floor onto locating pin in bottom half of fuselage nose.
9. Locate and cement rear bulkhead (12) between locating ribs in port fuselage half (13).
10. Cut out and cement printed instrument panel to panel front (14) then cement instrument panel against rear of rib in port fuselage nose.
11. Press, do not cement, the pin on the tail wheel leg (15) into locating hole in the starboard half of the fuselage (16) and position it so that it rests along the groove just behind the pin hole and is held in place.
12. The two halves of the fuselage can now be cemented together.
13. Cement completed lower half of fuselage nose into fuselage, making sure that the tab on the rear of the cockpit floor goes into the slot in the rear bulkhead.
14. Cement tail wheel mudguard (17) onto disc directly above wheel, pointing backwards.
15. Cement the three pegs of the dipole aerial (18) into locating holes in the underside of fuselage.
16. Locate and cement trunk outlet (19) into hole at extreme rear of fuselage with pointed end forward.
17. The two halves of the rudder (20, 21) are cemented next, but must be positioned either side of the hinges on fuselage before being pressed together. Ensure no cement comes into contact with the hinges.
18. Cement together the upper and lower halves of the port and starboard tail planes (22, 23, 24, 25).
19. Next apply cement to the starboard elevator halves (26, 27), do not press together until they are positioned over tailplane hinges. Ensure no cement comes into contact with the hinges.
20. Repeat this procedure for the port elevator assembly (28, 29).
21. The tail assemblies can now be cemented into the fuselage recesses.
22. Locate and cement the fairlead aerial (30) onto the raised boss on the port side of fuselage so that it points downwards and backwards.
23. Insert 13mm machine-gun (31) through hole in nose transparency (32) and carefully cement in place.
24. Cement nose transparency onto front of fuselage applying only a minimum of cement.
25. Cement together the three parts of cockpit canopy (33, 34, 35).
26. Insert one 7-9mm machine-gun (36) through forward slot, and two through rear holes of canopy (37, 38) and carefully cement in position.
27. Cement cockpit canopy into fuselage applying cement to edges of canopy only.
28. Cement radio aerial (39) into locating hole on the top of the forward half of canopy.

2 WING AND UNDERCARRIAGE ASSEMBLY



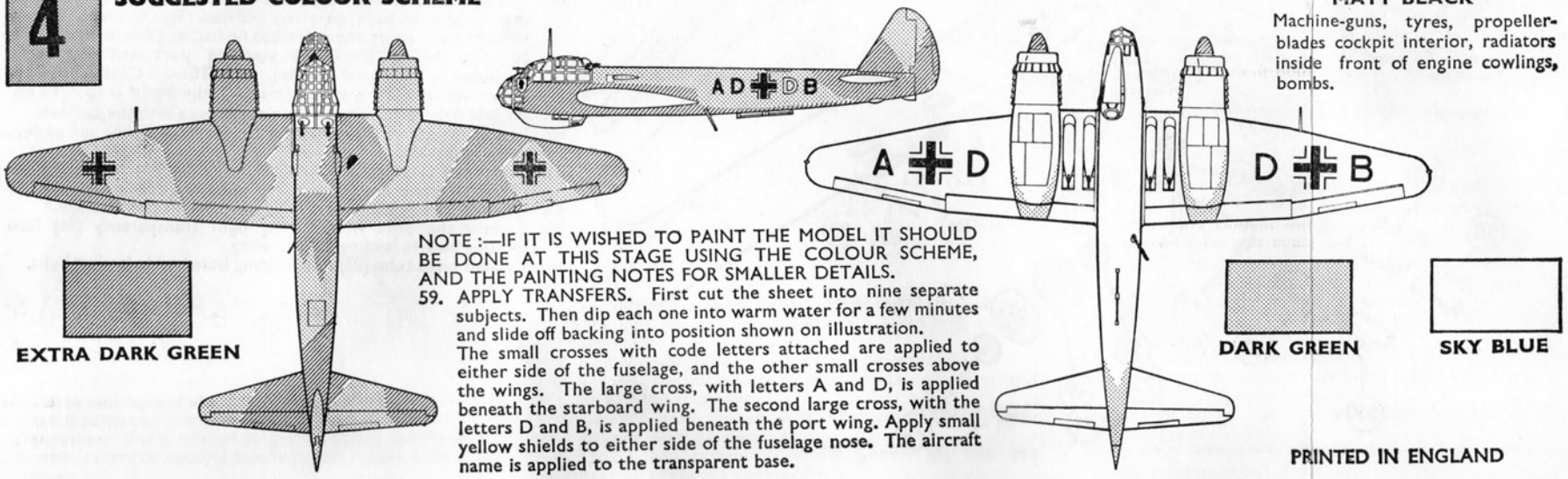
29. Locate port undercarriage wheel pivot (40) and position in pivot recesses in lower half on port wing (41) with the longer arm nearest the fuselage and the hole to the rear. DO NOT CEMENT.
30. Locate and cement two of the square retaining caps (42, 43) in position so that the raised step fits into the pivot recesses and holds the pivot in position.
31. Locate undercarriage operating arm (44) and cement one end between lugs on undercarriage leg (45) and other end on to protruding pin on rear of leg. NOTE—Axle on leg faces outwards.
32. Locate and cement undercarriage support stay (46) between the lower diameters on leg. Note that stay faces forward.
33. Insert square topped end of undercarriage leg through hole in pivot. DO NOT CEMENT.
34. Locate undercarriage leg cap (47) and cement on to square end of leg that protrudes through pivot.
35. Cement together two halves of port tyre (48, 49).
36. Locate the two port wheel caps (50, 51) and cement one on to the axle up against the undercarriage leg, then locate the tyre over the cap and cement the other wheel cap on end of axle.
37. Locate port dive brake (52) and insert into lower half of port wing from below so that the hinges fit into locating slots within the wing. DO NOT CEMENT.
38. Locate two of the hinge caps (53, 54) and cement them so that the longer face lies along the top of the hinge slots, and the short tab retains the hinge in the slot.
39. Cement together the two halves of the port aileron (55, 56).
40. When dry lay aileron in position in lower half of port wing and cement lower and upper halves together (57). Ensure no cement comes into contact with the hinges.
41. The desired undercarriage position must now be selected. If the model is to have retracted undercarriage the main wheels should be swung up and turned to lie flat, and the doors (58, 59, 60, 61) (NOTE these are stamped port and starboard) cemented in the closed position. NOTE:— Closed position shown on drawing number three If the model is to stand on its undercarriage cement the door hinges into the cut-outs
42. Repeat the above procedure for the starboard wing and undercarriage (62-83.)
43. Locate and cement the tail wheel doors (84, 85) on to the sides of the tail wheel cut out, in either open or closed position.
44. Cement port and starboard wings into the slots in fuselage.
45. Cement the port wing landing light transparency (86) into locating hole in leading edge of wing.
46. Cement pitot tube (87) into locating hole beside landing light.

3 ENGINE AND BOMB ASSEMBLY



47. Cement spinner (88) on to propeller (89), cut outs over propeller blades.
48. Insert propeller shaft through hole in back plate of spinner (90) and cement plate to front half of spinner.
49. Insert propeller shaft through port engine cowling (91) and cement retaining bush (92) to end of pin. Ensure no cement comes into contact with cowling.
50. Locate and cement engine exhausts (93, 94) on to recesses in port nacelle sides.
51. Repeat above procedure for starboard engine unit (95-101). Locate and cement completed engine units to nacelle fronts.
52. Cement the four bomb racks (102-105) into locating holes on undersides of wings, between nacelles and fuselage.
53. Locate and cement bomb carriers (106-113) into slots in bomb racks.
54. Cement together the halves of all four bombs (114-121).
55. Locate bomb tail rings (122-125) and cement on to steps on end of bomb fins.
56. Cement bombs into bomb carriers.
57. Cement together both parts of stand.
58. Cement arm of stand into slot provided in fuselage.

4 SUGGESTED COLOUR SCHEME



MATT BLACK
Machine-guns, tyres, propeller-blades cockpit interior, radiators inside front of engine cowlings, bombs.

EXTRA DARK GREEN

DARK GREEN

SKY BLUE

NOTE :—IF IT IS WISHED TO PAINT THE MODEL IT SHOULD BE DONE AT THIS STAGE USING THE COLOUR SCHEME, AND THE PAINTING NOTES FOR SMALLER DETAILS.

59. APPLY TRANSFERS. First cut the sheet into nine separate subjects. Then dip each one into warm water for a few minutes and slide off backing into position shown on illustration. The small crosses with code letters attached are applied to either side of the fuselage, and the other small crosses above the wings. The large cross, with letters A and D, is applied beneath the starboard wing. The second large cross, with the letters D and B, is applied beneath the port wing. Apply small yellow shields to either side of the fuselage nose. The aircraft name is applied to the transparent base.

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